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**Exhibit A**

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :

TAKEDA TOSHIHIRO : EXAMINER: CHU, KAIYEU K

NISHIHARA MORIHIKO

TANIHARA NOZOMU

SERIAL NO: 10/583,029 :

FILED: MAY 10, 2007 : GROUP ART UNIT: 3771

FOR: HUMIDIFYING DEVICE AND :

OXYGEN CONCENTRATING SYSTEM

DECLARATION UNDER 37 C.F.R. 1.132

COMMISSIONER FOR PATENTS

ALEXANDRIA, VIRGINIA 22313-1450

SIR:

I, TANIHARA Nozomu hereby declare:

1. I am a named inventor of the above-identified application and am familiar with the specification of the above-identified patent application.

2. The following observations and experiments were

carried out by me or under my direct supervision and control.

3. Experimental Report Regarding the Invention of Claims 1-6

1) Objective

To prove that the humidifying device having following features (A)-(C) of the invention of Claims 1-6 (hereinafter the present invention) can effectively humidify a gas with the damp air in atmospheric pressure.

Feature (A): Directing the gas to be humidified into the bores of hollow fibers.

Feature (B): Directing air through the space in the housing external of the hollow fibers by using a blowing means.

Feature (C): Setting the ratio between the sum of cross-sectional areas of the hollow fibers and an air passage cross-sectional area within the range of 0.1-0.7.

2) Experimental Method

2.1) Experiment 1

The experiments were carried out by using the bundle of 200 to 1000 hollow fibers so that the ratio between the sum of the cross-sectional areas of the hollow fibers and

the air passage cross-sectional area is 1.09. The hollow fibers are formed of polyimide membrane, each having an inner diameter of approximately 400 $\mu$ m, an outer diameter of approximately 500 $\mu$ m, a length of 150 mm and a water vapor transmission rate of approximately  $200 \times 10^{-5}$  cm<sup>3</sup> (STP)/(cm<sup>2</sup> sec cm Hg). As the gas to be moistened, oxygen-concentrated gas at 23°C was supplied at a flow rate of 5000 cm<sup>3</sup>/min through the bores of the hollow fibers, while the air was supplied through the space in the housing external of the hollow fibers. The fan for blowing the air was a small-sized axial flow fan of a low noise type, capable of supplying air of 23°C and 50%RH.

## 2.2) Experiment 2

The experiments were carried out by using the bundle of 200 to 1000 hollow fibers so that the ratio between the sum of the cross-sectional areas of the hollow fibers and the air passage cross-sectional area is 0.40. In Experiment 2, an oxygen concentrated gas was directed through the space in the housing external of the hollow fibers, and a damp air in atmospheric pressure was directed through the bores of hollow fibers, i.e., passage of an oxygen concentrated gas switched positions with one of a

damp air. Except for these points, Experiment 2 was conducted as with Experiment 1.

2.3) Experiments shown in Figure 4 of the instant specification

Data shown in Figure 4 are also shown in the below Table.

3) Experimental Results

	The Ratio of the sectional area	Obtained Relative Humidity of the oxygen-concentrated gas
Experiment 1	1.09	26.8%
Experiment 2	0.40	<2%
Experiments Shown in Figure 4	0.23 0.32 0.40 0.46 0.50	45.5% 47.0% 47.7% 47.4% 47.7%

The experimental results demonstrate that the present invention having the features (A)-(C) provides a humidifying device improved to effectively humidify an oxygen concentrated gas.

Experiment 1, wherein the ratio between the sum of the cross-sectional areas of the hollow fibers and the air passage cross-sectional area is set to 1.09, i.e., in case of a device without feature (C), demonstrates that the humidifying device cannot humidify an oxygen concentrated

gas in equal with relative humidity of a damp air in atmospheric pressure.

Experiment 2, in which an oxygen concentrated gas is directed through the space in the housing external of the hollow fibers, i.e., in case of a device without features (A) and (B), demonstrates that directing the air through the bores of the hollow fibers cannot vanishingly humidify the oxygen concentrated gas flowing through the space in the housing external of the hollow fiber. On the other hand, the humidifying device with feature (A), (B) and (C) of the present invention can effectively humidify an oxygen concentrated gas in equal with relative humidity of the damp air in atmospheric pressure, and is maintenance-free by using a blowing means of low noise and low power consumption type.

4. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize

the validity of this application or any patent issuing  
thereon.

Nozomu Tanihara

TANIHARA Nozomu

July 22, 2010

Date